#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019142 Address: 333 Burma Road **Date Inspected:** 09-Jan-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Liu Hua Jie **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD** 

#### WELDING:

Segment 12AW ~ 12BW

This QA Inspector observed ZPMC qualified welding personnel identified as 046704 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW12D-001; located On Orthotropic Box Girder (OBG) Bottom Plate to Bottom Plate CJP Weld; The Critical Welding Repair Report (CWRR) was B-CWR2707. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW 4G (4F) FCM-Repair-1. See attached photo for further details.

Segment 12AW ~ 12BW

# WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC qualified welding personnel identified as 046704 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBW12D-002; located On Orthotropic Box Girder (OBG) Bottom Plate to Bottom Plate CJP Weld; The Critical Welding Repair Report (CWRR) was B-CWR2709. ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW 4G (4F) FCM-Repair-1.

#### Segment 12BE

This QA Inspector observed ZPMC qualified welding personnel identified as 050289 perform Shielded Metal Arc Welding (SMAW), weld joint identified as CA3002-005; located On Orthotropic Box Girder (OBG) Side Plate to Edge Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1. See attached photo for further details.

# Segment 12CE

This QA Inspector observed ZPMC qualified welding personnel identified as 044515 perform Shielded Metal Arc Welding (SMAW), weld joint identified as CA3005-001; located On Orthotropic Box Girder (OBG) Side Plate to Edge Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Liu Hua Jie. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1

NDT:

Segment 12AW

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations Verified are as follows.

SEG3004T-015

SEG3004T-001

SEG3004T-002

SEG3004T-017

SEG3004W-015

SEG3004W-001

SEG3004W-002

SEG3004W-017

CA3006-002

Nondestructive testing (NDT) notification No.08103

Segment 12AW ~ 12BW (T-Rib Hold Back)

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of

# WELDING INSPECTION REPORT

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the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations Verified are as follows.

SP3034-001-179, 180

SP3038-001-017, 018

EP3007-001-057, 058

EP3008-001-005, 006

DP3039-001-020, 021

DP3050-001-009, 010

Nondestructive testing (NDT) notification No.08110

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.





### **Summary of Conversations:**

No significant conversations were reported on this date.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhune, Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer